Rec'd PCT/PTO 0 5 JAN 2005

COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY

| (includes | Reference | to PCT | International | Applications) |
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THE MILE WAY

ATTORNEY'S DOCKET NUMBER

PHNL020662 US

| s a below named inventor, I he | reby declare that: | | |
|---|--|---|--|
| My residence, post office addre | ess and citizenship are as stat | ed next to my name. | |
| plural names are listed below) | of the subject matter which is | name is listed below) or an origina claimed and for which a patent is oxide" the specification of whic | sought on the invention |
| is attached hereto. | | | : |
| ☐ was filed as United States a | pplication | | |
| Serial No | | | |
| on | | | |
| and was amended | | | |
| on | | | |
| ⊠ was filed as PCT internation | al application | | |
| Number PCT/IB2003/002980 | | | |
| On 02 July 2003 | | | |
| and was amended under PCT | Article 19 | | |
| on | | | (if applicable). |
| I hereby state that I have revievel claims, as amended by any am | | ents of the above-identified specific | cation, including the |
| l acknowledge the duty to discl Title 37, Code of Federal Regu | | rial to the examination of this app | lication in accordance with |
| or inventor's certificate or of an States of America listed below any PCT international application | y PCT international application and have identified below any on(s) designating at least one | States Code, § 119 of any foreign n(s) designating at least one count foreign application(s) for patent of country other than the United Staff the application(s) of which priority | or inventor's certificate or item of America filed by me |
| PRIOR FOREIGN/PCT APPLIC | CATION(S) AND ANY PRIOR | ITY CLAIMS UNDER 35 U.S.C. 1 | 19: |
| COUNTRY | APPLICATION NUMBER | DATE OF FILING DAY, MONTH, YEAR | PRIORITY CLAIMED UNDER 35 USC 119 |
| Europe | 02077784.3 | 10 July 2002 | YES |
| | | | |
| | | | |

| Combined Declaration For Patent Application and Power of Attorney (Continued) | Attorneys Docket Number |
|---|-------------------------|
| (includes Reference to PCT International Applications) | PHNL020662 US |

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (List name and registration number)

Jack E. Haken, Reg. No. 26,902 Michael E. Marion, Reg. No. 32,266 Edward M. Blocker, Reg. No. 30,245 Direct Telephone Calls to: (name and telephone number) (914)332-0222

| 100 | FULL NAME OF INVENTOR | FAMILY NAME VAN BRUGGEN | FIRST GIVEN NAME Michel | SECOND GIVEN NAME Paul Barbara |
|-----|-------------------------|--|---|---|
| 201 | RESIDENCE & CITIZENSHIP | CITY Eindhoven | STATE OR FOREIGN COUNTRY The Netherlands 从文 | COUNTRY OF CITIZENSHIP The Netherlands |
| | POST OFFICE ADDRESS | POST OFFICE ADDRESS Prof. Holstlaan 6 | 5656 AA Eindhoven | STATE & ZIP CODE/COUNTRY The Netherlands |
| | FULL NAME OF INVENTOR | FAMILY NAME APETZ | FIRST GIVEN NAME ROIF | SECOND GIVEN NAME Theo Anton |
| 202 | RESIDENCE & CITIZENSHIP | CITY Aachen | STATE OR FOREIGN COUNTRY Germany | COUNTRY OF CITIZENSHIP Germany |
| | POST OFFICE ADDRESS | POST OFFICE ADDRESS Mauerstrasse 73 | D-52064 Aachen | STATE & ZIP CODE/COUNTRY Germany |
| 30D | FULL NAME OF INVENTOR | FAMILY NAME KOP | Theo | SECOND GIVEN NAME Arnold |
| 203 | RESIDENCE & CITIZENSHIP | CITY Eindhoven | STATE OR FOREIGN COUNTRY The Netherlands | COUNTRY OF CITIZENSHIP The Netherlands |
| | POST OFFICE ADDRESS | POST OFFICE ADDRESS Prof. Holstlaan 6 | 5656 AA Eindhoven | STATE & ZIP CODE/COUNTRY The Netherlands |
| | FULL NAME OF INVENTOR | FAMILY NAME KRELL | FIRST GIVEN NAME Andreas | SECOND GIVEN NAME |
| 204 | RESIDENCE & CITIZENSHIP | CITY EindhovenDresden | STATE OR FOREIGN COUNTRY Germany | Germany |
| | POST OFFICE ADDRESS | POST OFFICE ADDRESS Altkaitz 7 | D-01217 Dresden | STATE & ZIP CODE/COUNTRY Germany |
| | FULL NAME OF INVENTOR | FAMILY NAME HUTZLER | FIRST GIVEN NAME Thomas | SECOND GIVEN NAME |
| 205 | RESIDENCE & CITIZENSHIP | CITY Dresden | STATE OR FOREIGN COUNTRY Germany | COUNTRY OF CITIZENSHIP Germany |
| | POST OFFICE ADDRESS | POST OFFICE ADDRESS Burgkstrasse 19 | D-01159 Dresden | STATE & ZIP CODE/COUNTRY Germany |

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true: and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 if Title 18 of the United states Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

| SIGNATURE OF INVENTOR 201 | SIGNATURE OF INVENTOR 202 | SIGNATURE OF INVENTOR 203 |
|---------------------------|---------------------------|---------------------------|
| DATE 05 February 2004 | DATE | DATE 05 February 2004 |
| SIGNATURE OF INVENTOR 204 | SIGNATURE OF INVENTOR 205 | |
| DATE | DATE | |

U.S. DEPARTMENT OF COMMERCE- Patent and Trademarks Office

| APPLICATION AND POWER OF | J. W. L. | ATTORNEY'S DOCKET NUMBER |
|--------------------------|----------|-----------------------------|
| | | PHNL020662 US |

| s a below named inventor, I he | reby declare that: | | | | | | | |
|---|---|--|--|--|--|--|--|--|
| My residence, post office addre | ess and citizenship are as state | ed next to my name. | | | | | | |
| plural names are listed below) | elieve I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if or large listed below) of the subject matter which is claimed and for which a patent is sought on the invention titled: "Transparent polycrystalline aluminium oxide" the specification of which (check only one item low): | | | | | | | |
| is attached hereto. | | | | | | | | |
| ☐ was filed as United States a | pplication | | | | | | | |
| Serial No | | | | | | | | |
| on | | | Į. | | | | | |
| and was amended | | | | | | | | |
| on | | | | | | | | |
| ☑ was filed as PCT internation | al application | | | | | | | |
| Number PCT/IB2003/002980 | | | | | | | | |
| On 02 July 2003 | | | | | | | | |
| and was amended under PCT | Article 19 | | | | | | | |
| on | | | (if applicable). | | | | | |
| I hereby state that I have revieved claims, as amended by any am | | nts of the above-identified specific | cation, including the | | | | | |
| I acknowledge the duty to discl Title 37, Code of Federal Regu | | rial to the examination of this appli | cation in accordance with | | | | | |
| or inventor's certificate or of an States of America listed below any PCT international applicati | y PCT international application and have identified below any on(s) designating at least one | States Code, § 119 of any foreign n(s) designating at least one count foreign application(s) for patent or country other than the United Stat the application(s) of which priority | try other than the United r inventor's certificate or tes of America filed by me | | | | | |
| PRIOR FOREIGN/PCT APPLIC | CATION(S) AND ANY PRIORI | TY CLAIMS UNDER 35 U.S.C. 11 | 19: | | | | | |
| COUNTRY | APPLICATION NUMBER | DATE OF FILING DAY, MONTH, YEAR | PRIORITY CLAIMED UNDER 35 USC 119 | | | | | |
| Europe | 02077784.3 | 10 July 2002 | YES | | | | | |
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| | | DEPARTMENT OF COMMERCE DO | And and Trade and Coffice | | | | | |

U.S. DEPARTMENT OF COMMERCE -Patent and Trademarks Office (July 1994)

| | | n For Patent Application and P T International Applications) | ower of Attorney (Continu | ied) | Attorneys Docket Number PHNL020662 US |
|----------------|---|--|--|--|---|
| POW all bus | ER OF ATTORNE iness in the Patent a | Y: As a named inventor, I hereby app and Trademark Office connected there | oint the following attorney(s) and with. (List name and registration | d/or agent(s) to pr number) | osecute this application and transact |
| Mich | E. Haken, Reg. ael E. Marion, R ard M. Blocker, F | | | Direct Teleph (name and tel (914)332-0 | lephone number) |
| <u> </u> | FULL NAME OF INVENTOR | FAMILY NAME VAN BRUGGEN | FIRST GIVEN NAME Michel | | SECOND GIVEN NAME Paul Barbara |
| 201 | RESIDENCE & CITIZENSHIP | CITY Eindhoven | STATE OR FOREIGN CO The Netherlands | | COUNTRY OF CITIZENSHIP The Netherlands |
| | POST OFFICE ADDRESS | POST OFFICE ADDRESS Prof. Holstlaan 6 | 5656 AA Eindho | ven | STATE & ZIP CODE/COUNTRY The Netherlands |
| 00 | FULL NAME OF INVENTOR | FAMILY NAME APETZ | FIRST GIVEN NAME Rolf | | SECOND GIVEN NAME Theo Anton COUNTRY OF CITIZENSHIP |
| 202 | RESIDENCE & CITIZENSHIP | CITY Aachen | STATE OR FOREIGN CO | | Germany |
| | POST OFFICE ADDRESS | POST OFFICE ADDRESS Mauerstrasse 73 | D-52064 Aachen | | STATE & ZIP CODE/COUNTRY Germany |
| | FULL NAME OF INVENTOR | KOP | FIRST GIVEN NAME Theo | | SECOND GIVEN NAME Arnold |
| 203 | RESIDENCE & CITIZENSHIP | CITY Eindhoven | STATE OR FOREIGN CO The Netherlands | | COUNTRY OF CITIZENSHIP The Netherlands |
| | POST OFFICE ADDRESS | POST OFFICE ADDRESS Prof. Holstlaan 6 | 5656 AA Eindho | ven | STATE & ZIP CODE/COUNTRY The Netherlands |
| | FULL NAME OF INVENTOR | FAMILY NAME KRELL | FIRST GIVEN NAME Andreas | | SECOND GIVEN NAME |
| 204 | RESIDENCE & CITIZENSHIP | CITY EindhovenDresden | STATE OR FOREIGN CO Germany | UNTRY | COUNTRY OF CITIZENSHIP Germany |
| | POST OFFICE ADDRESS | POST OFFICE ADDRESS Altkaitz 7 | D-01217 Dresder | 1 | STATE & ZIP CODE/COUNTRY Germany |
| | FULL NAME OF INVENTOR | FAMILY NAME HUTZLER | FIRST GIVEN NAME Thomas | | SECOND GIVEN NAME |
| 205 | RESIDENCE & CITIZENSHIP | Dresden | STATE OR FOREIGN CO Germany | UNTRY | COUNTRY OF CITIZENSHIP Germany |
| | POST OFFICE ADDRESS | POST OFFICE ADDRESS Burgkstrasse 19 | D-01159 Dresder | 1 | STATE & ZIP CODE/COUNTRY Germany |
| true: a | nd further that these | atements made herein of my own knows statements were made with the knows der section 1001 if Title 18 of the Unite | ledge that willful false statement | s and the like so | |

application or any patent issuing thereon.

| SIGNATURE OF INVENTOR 201 | SIGNATURE OF INVENTOR 202 | SIGNATURE OF INVENTOR 203 |
|---------------------------|---------------------------|---------------------------|
| DATE | DATE 17 February 2004 | DATE |
| SIGNATURE OF INVENTOR 204 | SIGNATURE OF INVENTOR 205 | |
| DATE | DATE . | |

U.S. DEPARTMENT OF COMMERCE- Patent and Trademarks Office

ATTORNEY'S DOCKET NUMBER

PHNL020662 US

| s a below named inventor, I he | reby declare that: | | |
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| My residence, post office addre | ess and citizenship are as stat | ed next to my name. | |
| plural names are listed below) | of the subject matter which is | name is listed below) or an original, first claimed and for which a patent is soug oxide" the specification of which (ch | ht on the invention |
| is attached hereto. | | | |
| ☐ was filed as United States a | pplication | | |
| Serial No | | | |
| on | | | |
| and was amended | | | |
| on | | | |
| | nal application | | |
| Number PCT/IB2003/002980 | | | |
| On 02 July 2003 | | | |
| and was amended under PCT | Article 19 | | |
| on | | | (if applicable). |
| I hereby state that I have review claims, as amended by any am | | ents of the above-identified specification | n, including the |
| I acknowledge the duty to discl Title 37, Code of Federal Regu | | rial to the examination of this application | on in accordance with |
| or inventor's certificate or of an States of America listed below any PCT international application | y PCT international applicatio and have identified below any on(s) designating at least one | States Code, § 119 of any foreign appl n(s) designating at least one country of foreign application(s) for patent or invo- country other than the United States of the application(s) of which priority is c | ther than the United entor's certificate or of America filed by me |
| PRIOR FOREIGN/PCT APPLIC | CATION(S) AND ANY PRIOR | ITY CLAIMS UNDER 35 U.S.C. 119: | |
| COUNTRY | APPLICATION NUMBER | DATE OF FILING DAY, MONTH, YEAR | PRIORITY CLAIMED UNDER 35 USC 119 |
| Europe | 02077784.3 | 10 July 2002 | YES |
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U.S. DEPARTMENT OF COMMERCE –Patent and Trademarks Office (July 1994)

| (includ | des Reference to PO | on For Patent Appli CT International Applica | ions) | | | | Attorneys Docket Number PHNL020662 US |
|----------------|---|---|---|--|-------------------------------|---|--|
| POW all bus | ER OF ATTORNE siness in the Patent | EY: As a named inventor and Trademark Office of | or, I hereby appoint onnected therewith | t the following attor h. (List name and r | ney(s) and/o egistration n | or agent(s) to pr umber) | osecute this application and transact |
| Mich | E. Haken, Reg. ael E. Marion, R ard M. Blocker, I | | | | | Direct Telepho (name and tel (914)332-0 | ephone number) |
| | FULL NAME OF INVENTOR | FAMILY NAME VAN BRUGGI | ≣N | FIRST GIVEN N Michel | | | SECOND GIVEN NAME Paul Barbara |
| 201 | RESIDENCE & CITIZENSHIP | CITY Eindhoven | | STATE OR FOR The Nethe | | NTRY | COUNTRY OF CITIZENSHIP The Netherlands |
| | POST OFFICE ADDRESS | POST OFFICE ADDR | | 5656 AA E | | en | STATE & ZIP CODE/COUNTRY The Netherlands |
| | FULL NAME OF INVENTOR | FAMILY NAME APETZ | | FIRST GIVEN N | | | SECOND GIVEN NAME Theo Anton |
| 202 | RESIDENCE & CITIZENSHIP | Aachen | | STATE OR FOR Germany | EIGN COUN | NTRY | COUNTRY OF CITIZENSHIP Germany |
| | POST OFFICE ADDRESS | POST OFFICE ADDR | | D-52064 A | | | STATE & ZIP CODE/COUNTRY Germany |
| | FULL NAME OF INVENTOR | FAMILY NAME KOP | • | FIRST GIVEN N. Theo | AME | | SECOND GIVEN NAME Arnold |
| 203 | RESIDENCE & CITIZENSHIP | CITY Eindhoven | | STATE OR FOR The Nethe | | ITRY | COUNTRY OF CITIZENSHIP The Netherlands |
| | POST OFFICE ADDRESS | POST OFFICE ADDR | | 5656 AA E | indhove | en | STATE & ZIP CODE/COUNTRY The Netherlands |
| D | FULL NAME OF INVENTOR | FAMILY NAME KRELL | | FIRST GIVEN N. Andreas | | | SECOND GIVEN NAME |
| 204 | RESIDENCE & CITIZENSHIP | CITY EindhovenDre | | STATE OR FOR Germany | | | Germany |
| | POST OFFICE ADDRESS | POST OFFICE ADDR Altkaitz 7 | ESS | D-01217 D | | | STATE & ZIP CODE/COUNTRY Germany |
| o | FULL NAME OF INVENTOR | FAMILY NAME _HUTZLER | | FIRST GIVEN NA Thomas | | | SECOND GIVEN NAME |
| 205 | RESIDENCE & CITIZENSHIP | Dresden | | STATE OR FOR Germany | PESX | | COUNTRY OF CITIZENSHIP Germany |
| , | POST OFFICE ADDRESS | POST OFFICE ADDR Burgkstrasse | | D-01159 D | resden | | STATE & ZIP CODE/COUNTRY Germany |
| true: a | nd further that these | e statements were made der section 1001 if Title | with the knowledg | e that willful false s | statements a | and the like so n | formation and belief are believed to be hade are punishable by fine or ts may jeopardize the validity of the |
| SIGNA | TURE OF INVENT | OR 201 | SIGNATURE OF | FINVENTOR 202 | | SIGNAT | URE OF INVENTOR 203 |
| DATE | | | DATE | | | DATE | |
| SIGNA | TURE OF INVENTO | OR 204 | SIGNATURE OF | INVENTOR 205 | | | |
| | d | P. MICE | | The Cold | 36 | | |
| DATE | 23 February 2 | | DATE 2° | February 2004 | 4 | | |

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|---------------|---|----------------------------------|--|--|----------------|
| X Pro | actitioners associated with the Customer Number: | 24 | 737 | | |
| OR | | | | | |
| Pra | actitioner(s) named below (if more than ten patent pr | actitioners are | to be named, then a cus | tomer number must be used): | |
| | Name | | Registr | ation Number | |
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| as attorne | v(s) or agent(s) to represent the undersigned before | the United Ot- | too Dodood o d.E. | | |
| any and a | y(s) or agent(s) to represent the undersigned before Il patent applicationsassigned <u>only</u> to the undersign o this form in accordance with 37 CFR 3.73(b). | ed according to | tes Patent and Tradema the USPTO assignment | rk Office (USPTO) in connection t records or assignment docum | n with ents |
| _ | | | | | |
| Assigne | e Name and Address: | | | | |
| Kon | ninklijke Philips Electronics | N.V. | • | | |
| Gro | enewoudseweg 1 | | | | |
| 562 | 21 BA Eindhoven, The Netherlar | rds | | | |
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| A copy o | of this form, together with a statement t | ınder 37 CF | R 3.73(b) (Form P | TO/SB/96 or equivalent) | is |
| may be | completed by one of the practitioners a | i this torm i concinted in | s used. The state | ment under 37 CFR 3.73 | (b) |
| addition iz | ed to act on behalf of the assignee, and sister be filed. | i must iden | tify the application | in which this Power of | |
| Attorney | isto be med. | | | | |
| | The individual whose signature and title is s | RE of Assigned supplied below | of Record is authorized to act on b | ehalf of the assignee | |
| Name | Matthieu van Kapp | | | ·- | |
| Signature | 1/ham | | Date | Amilla 200 | U |
| Title | Authorized Representative | | Telephone | (914) 333-9600 | |
| his collectio | n of information is required by 37 CFR 1.31 and 1.33. The | Information is rec | uired to obtain or retain a be | anglit by the public which is to file /s | Sales and |

USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete his form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

JT12 Rec'd POT/PTO 0 5 JAN 2005



PTO/SB/96 (08-03)
Approved for Frough 07/31/2006. OMB 0651-0031
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| STATEMENT UNDER 37 CFR 3.73(b) | |
|--|--|
| Applicant/Patent Owner: Koninklijke Philips Electronics N.V. | |
| Application No./Patent No.: Concurrently | Filed/Issue Date: Concurrently |
| Entitled: TRANSPARENT POLYCRYSTALLINE ALUMINIUM OXIDE | |
| Koninklijke Philips Electronics N.V. (Name of Assignee) | , a <u>corporation</u> (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.) |
| states that it is: 1. ☑ the assignee of the entire right, title, and interest; or | |
| 2. an assignee of less than the entire right, title and interest. The extent (by percentage) of its ownership interest is —————————————————————————————————— | |
| A. [] An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached. | |
| OR | |
| B. [] A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below: | |
| The document was recorded in the Unite | To: ed States Patent and Trademark Office at, or for which a copy thereof is attached. |
| From: The document was recorded in the Unite | To: |
| | ed States Patent and Trademark Office at, or for which a copy thereof is attached. |
| From: The document was recorded in the Units | To: ed States Patent and Trademark Office at |
| Reel, Frame | , or for which a copy thereof is attached. |
| [] Additional documents in the chain of title are listed on a supplemental sheet. | |
| [] Copies of assignments or other documents in the chain of title are attached. [NOTE: A separate copy (<i>i.e.</i> , the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08] | |
| The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee. | |
| 12/2/09 | Frank Keegan, Reg. 50,145 |
| Date _(914) 333-9669 | Typed or p ripted name |
| Telephone number | Signature |
| · | Corporate Counsel |

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.